

IN THE CLAIMS

1. (currently amended) An information processing apparatus comprising:

receiving means for receiving a stream constructed by packets of a predetermined format under control of a control means;

extracting means for extracting packets for recording to a recording means from the packets constructing said stream received by said receiving means;

memory means for storing said packets for recording;

memory control means for controlling writing and reading said packets of said memory means and for issuing a command to prepare transferring before an amount of said packets stored by said memory means reaches a full capacity;

a command buffer for forming a command for instructing a DMA transfer;

transfer preparing means for permitting DMA transferring and issuing an end status;

index adding means for adding an updated address on the recording means when said end status is issued as index to said packets read out by said memory control means; and

transfer means for DMA transferring said packets for recording to the recording means in accordance with said command formed in said command buffer and said updated address from said index adding means

packets transferring control means for permitting write access to said recording means in accordance with said command from said memory control means, so that said packets are transferable for recording to said recording means from said index adding means without control of said control means.

2. (currently amended) An information processing apparatus according to claim 1, wherein

said memory means includes an input FIFO, and
 said DMA transferring ~~transferring of said packets~~ is made
 bit cluster by bitcluster by a block of a predetermined data
amount, wherein said command to instruct said DMA transfer is
formed before an amount of said packets stored by said memory
means reaches a full capacity.

3-6. (canceled).

7. (previously presented) An information processing apparatus according to claim 1, wherein the recording means is a hard disk drive built in said information processing apparatus.

8. (withdrawn) An information processing apparatus comprising:

 receiving means for receiving a stream constructed by packets of a predetermined format;

 extracting means for extracting the packets which are recorded to a recording apparatus from the packets constructing said stream received by said receiving means;

 memory means for storing said packets extracted by said extracting means;

 a command buffer for setting address information for DMA transfer; and

 adding means for adding said set address information every predetermined data amount (block) of the packets read out from said memory means.

9. (withdrawn) An information processing apparatus according to claim 8, wherein said adding means adds the address information including at least one of an address in said recording apparatus in which a just-previous block has been recorded, an address in said recording apparatus in which a

current block is recorded, and an address in said recording apparatus in which a just-subsequent block is recorded to said block.

10. (withdrawn) An information processing apparatus according to claim 8, further comprising updating means for updating said set address information for DMA transfer.

11. (withdrawn) An information processing apparatus according to claim 10, wherein said updating means has an internal counter for automatically setting said address information.

12. (withdrawn) An information processing apparatus according to claim 11, wherein as said address information, each time the DMA transfer of one block is finished, said internal counter is counted up and the address information of one block is set.

13. (withdrawn) An information processing apparatus according to claim 10, wherein said updating means updates said address information for DMA transfer when the data amount of said packets stored by said memory means reaches a predetermined capacity.

14. (withdrawn) An information processing apparatus according to claim 8, wherein said memory means is constructed by an input FIFO and an output FIFO.

15. (withdrawn) An information processing apparatus according to claim 14, further comprising updating means for updating said set address information for DMA transfer.

16. (withdrawn) An information processing apparatus according to claim 15, wherein said updating means updates said address

information for DMA transfer when the data amount of said packets stored in said input FIFO is equal to or larger than a predetermined capacity.

17. (withdrawn) An information processing apparatus according to claim 15, wherein said updating means updates said address information for DMA transfer when the data amount of said packets stored in said output FIFO is equal to or smaller than a predetermined capacity.

18. (withdrawn) An information processing apparatus according to claim 8, wherein said recording apparatus is a hard disk drive built in said information processing apparatus.

19. (currently amended) A digital broadcast receiving apparatus having a hard disk drive therein, comprising:

receiving means for receiving a stream constructed by packets of a predetermined format under control of a control means;

extracting means for extracting the packets for recording to said hard disk drive from the packets constructing said stream received by said receiving means;

memory means for storing said packets for recording;

memory control means for controlling writing and reading said packets of said memory means and for issuing a command to prepare transferring before an amount of said packets stored by said memory means reaches a full capacity;

~~a command buffer for forming a command for instructing a DMA transfer;~~

~~transfer preparing means for permitting DMA transferring and issuing an end status;~~

index adding means for adding an updated address on said hard disk drive when said end status is issued as index to said packets read out by said memory control means; and

transfer means for DMA transferring said packets for recording to said hard disk drive in accordance with said command formed in said command buffer and said updated address from said index adding means

packets transferring control means for permitting write access to said recording means in accordance with said command from said memory control means, so that said packets are transferable for recording to said recording means from said index adding means without a control of said control means.

20. (currently amended) A digital broadcast receiving apparatus according to claim 19, wherein

 said memory means includes an input FIFO, and

said DMA transferring transferring of said packets is made bitcluster by bitcluster by a block of a predetermined data amount, wherein said command to instruct said DMA transfer is formed before an amount of said packets stored by said memory means reaches a full capacity.

21-24. (canceled).

25. (withdrawn) A digital broadcast receiving apparatus having a hard disk drive therein, comprising:

 receiving means for receiving a stream constructed by packets of a predetermined format;

 extracting means for extracting the packets which are recorded into said hard disk drive from the packets constructing said stream received by said receiving means;

 memory means for storing said packets extracted by said extracting means;

a command buffer for setting address information for DMA transfer; and

adding means for adding said set address information every predetermined data amount (block) of the packets read out from said memory means.

26. (withdrawn) A digital broadcast receiving apparatus, according to claim 25, wherein said adding means adds the address information including at least one of an address in said hard disk drive in which a just-previous block has been recorded, an address in said hard disk drive in which a current block is recorded, and an address in said hard disk drive in which a just-subsequent block is recorded to said block.

27. (withdrawn) A digital broadcast receiving apparatus, according to claim 25, further comprising updating means for updating said set address information for DMA transfer.

28. (withdrawn) A digital broadcast receiving apparatus according to claim 27, wherein said updating means has an internal counter for automatically setting said address information.

29. (withdrawn) A digital broadcast receiving apparatus according to claim 28, wherein as said address information, each time the DMA transfer of one block is finished, said internal counter is counted up and the address information of one block is set.

30. (withdrawn) A digital broadcast receiving apparatus according to claim 27, wherein said updating means updates said address information for DMA transfer when the data amount of

said packets stored by said memory means reaches a predetermined capacity.

31. (withdrawn) A digital broadcast receiving apparatus according to claim 25, wherein said memory means is constructed by an input FIFO and an output FIFO.

32. (withdrawn) A digital broadcast receiving apparatus according to claim 31, further comprising updating means for updating said set address information for DMA transfer.

33. (withdrawn) A digital broadcast receiving apparatus according to claim 32, wherein said updating means updates said address information for DMA transfer when the data amount of said packets stored in said input FIFO is equal to or larger than a predetermined capacity.

34. (withdrawn) A digital broadcast receiving apparatus according to claim 32, wherein said updating means updates said address information for DMA transfer when the data amount of said packets stored in said output FIFO is equal to or smaller than a predetermined capacity.

35. (currently amended) An information processing method comprising:

receiving a stream constructed by packets of a predetermined format under control of a control means;

extracting packets for recording from the packets constructing said received stream;

using a memory means to store ~~storing~~ said packets for recording;

using a memory control means to control writing and reading of said packets of said memory means and to issue a command to

prepare transferring before an amount of said packets stored by said memory means reaches a full capacity;
forming a command for instructing a DMA transfer;
permitting DMA transferring and issuing an end status;
using an index adding means to addadding an updated address on a recording device when said end status is issued as index to said packets read out by said memory control means; and
DMA transferring said packets for recording to said recording device in accordance with said command and said updated address
using a packets transferring control means to permit write access to said recording device in accordance with said command from said memory control means, so that said packets are transferable for recording to said recording device from said index adding means without control of said control means.

36. (withdrawn) An information processing method comprising:
a receiving step of receiving a stream constructed by packets of a predetermined format;
an extracting step of extracting the packets which are recorded to a recording apparatus from the packets constructing said stream received by said receiving step;
a storing step of storing said packets extracted by said extracting step;
a setting step of setting address information for DMA transfer by a command buffer; and
an adding step of adding said set address information every predetermined data amount (block) of the packets read out from said memory means.

37. (currently amended) A recording medium in which a computer-readable program has been recorded, wherein said program, when executed, comprises the steps of:

receiving a stream constructed by packets of a predetermined format under control of a control means;

extracting packets from the packets constructing said received stream;

using a memory means to store ~~storing~~ said packets for recording;

using a memory control means to control writing and reading of said stored packets and to issue a command to prepare transferring before an amount of said stored packets reaches a full capacity;

~~forming a command for instructing a DMA transfer;~~

~~permitting DMA transferring and issuing an end status;~~

using an index adding means, adding an updated address on a recording device when said end status is issued as index to said packets read out by said memory control means; and

~~DMA transferring said packets for recording to said recording device in accordance with said command and said updated address~~

a packets transferring control means to permit write access to said recording device in accordance with said command from said memory control means, so that said packets are transferable for recording to said recording device from said index adding means without control of said control means.

38. (withdrawn) A recording medium in which a computer-readable program has been recorded, wherein said program comprises:

a receiving step of receiving a stream constructed by packets of a predetermined format;

an extracting step of extracting the packets which are recorded to a recording apparatus from the packets constructing said stream received by said receiving step;

a storing step of storing said packets extracted by said extracting step;

a setting step of setting address information for DMA transfer by a command buffer; and

an adding step of adding said set address information every predetermined data amount (block) of the packets read out from said memory means.

39. (new) An information processing apparatus according to claim 2,

said input FIFO for sequentially storing said packets for recording and for output said packets in storing order; and

said packets transferring control means supplies start address of said recording means.

40. (new) An information processing apparatus according to claim 39, said packets transferring control means transfers said packets for recording to said recording means until determining an end status, and once determined said end status, said packets transferring control means updates said start address of said recording means.

41. (new) A digital broadcasting receiving apparatus according to claim 20,

said input FIFO for sequentially storing said packets for recording and for output said packets in storing order; and

said packets transferring control means supplies start address of said recording means.

42. (new) A digital broadcasting receiving apparatus according to claim 41, said packets transferring control means transfers said packets for recording to said recording means until determining an end status, and once determined said end status,

said packets transferring control means updates said start address of said recording means.

43. (new) An information processing method according to claim 35,

 said storing said packets for recording includes storing said packets into an input FIFO, and

 said transferring of said packets is made cluster by cluster of a predetermined data amount.

44. (new) An information processing method according to claim 43,

 said input FIFO for sequentially storing said packets for recording and for output said packets in storing order; and

 said packets transferring control means supplies start address of said recording means.

45. (new) An information processing method according to claim 44, said packets transferring control means transfers said packets for recording to said recording means until determining an end status, and once determined said end status, said packets transferring control means updates said start address of said recording means.

46. (new) A recording medium in which a computer-program readable program has been recorded according to claim 37,

 storing said packets for recording includes storing said packets into an input FIFO, and

 said transferring of said packets is made cluster by cluster of a predetermined data amount.

47. (new) A recording medium in which a computer-program readable program has been recorded according to claim 46,

said input FIFO for sequentially storing said packets for recording and for output said packets in storing order; and

 said packets transferring control means supplies start address of said recording means.

48. (new) A recording medium in which a computer-readable program has been recorded according to claim 47,

 said packets transferring control means transfers said packets for recording to said recording means until determining an end status, and once determined said end status, said packets transferring control means updates said start address of said recording means.